

Attorney Docket No. 9013-72  
In re: Morris et al.  
Application Serial No.: 10/562,401  
Filed: April 5, 2006

## REMARKS

Applicants appreciate the thorough examination of the present application as evidenced by the Action mailed September 29, 2009. Claims 1–8 and 39–41 are currently pending in this application. In response to the Action, Applicants submit the present amendment. Applicants respectfully request entry of the amendment presented herein and further consideration of the present application in view of this amendment and the remarks provided below.

### **Support for Claim Amendments**

The amendments presented herein have been made to recite particular aspects of the invention so as to expedite the prosecution of the present application to allowance in accordance with the USPTO Patent Business Goals (65 Fed. Reg. 54603, September 8, 2000). These amendments do not represent an acquiescence or agreement with any of the outstanding rejections.

Claims 1–8 are amended herein to more particularly point out what Applicants regard as the invention. New claims 42 and 43 are directed toward particular embodiments of the invention of claims 1 and 8; new claims 44 and 45 are directed toward the subject matter of canceled claims 40 and 41; and new claims 46–48 are directed toward particular embodiments of the claims 44 and 45. Support for the claim amendment to claims 1–8 can be found at page 11, lines 7–12 of the specification. Support for new claim 42 can be found at page 10, lines 13–16 of the specification. Support for new claim 43 can be found at page 9, line 4–8 of the specification. Support for new claims 46–48 can be found at page 12, lines 3–26 of the specification. The issues raised by the Examiner are addressed below in the order in which they appear in the Action.

### **Claim Rejections - 35 U.S.C. § 112 and 35 U.S.C. § 101**

Claims 39–41 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim what Applicants regard as the invention, and under 35 U.S.C. § 101 as being an improper process claim.

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In view of the cancelation of claims 39–41, applicants believe that this rejection has been rendered moot, and respectfully request that this rejection be withdrawn.

**Claim Rejections - 35 U.S.C. § 102**

Claims 1–4, 6 and 7 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by Zhang et al. (1993) *Langmuir* **9**:2337–2343 (“Zhang et al.”). The Examiner submits that the disclosures of Zhang et al. describe all the elements of the instant claims.

Zhang et al. discuss the adsorption properties of nitrogen monoxide (NO) on various metal ion-exchanged zeolites as determined by adsorption-desorption measurements in a fixed bed flow adsorption apparatus (*see, abstract*). The properties of adsorption-desorption of various nitrogen oxides (NO<sub>x</sub>) as examined by Zhang et al. is related to the removal of the same in applications related to the control of air pollution. (*see, p. 2337, col. 1, first paragraph*).

The present invention is related to pharmaceutical, nutraceutical and cosmetic preparations comprising a zeolite material comprising releasably bound nitric oxide, specifically NO. Although Zhang et al. may generally discuss the examination of reversible and irreversible adsorption properties of NO and various other nitrogen oxides on zeolites, the disclosures of Zhang et al. are silent in regard to pharmaceutical, nutraceutical and cosmetic preparations comprising a zeolite comprising, specifically, releasably (reversibly) bound NO as instantly claimed. In view of the foregoing, Applicants submit that the disclosures of Zhang et al. do not anticipate the instant claims, and respectfully request that the instant rejection be withdrawn.

Claims 1, 5 and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rudolf et al. (2002) *J. Magn. Res.* **155**:45–56 (“Rudolf et al.”). The Examiner submits that the disclosures of Zhang et al. describe all the elements of the instant claims.

Rudolf et al. discuss studying Lewis acid centers of nanoporous materials such as A type or ZSM-5 type zeolites using NO as a probe molecule and electron paramagnetic resonance (EPR, *see, p. 45, col. 1, first paragraph*). The characterization of Lewis acid centers of solids such as zeolites, as one of skill in the art will appreciate, relates to the use of the zeolites in heterologous catalysis for various acid catalyzed reactions, as may be required and utilized in the petrochemical industry. As with the disclosures of Zhang et al., Rudolf et al. are silent regarding

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pharmaceutical, nutraceutical and cosmetic preparations comprising a zeolite material comprising releasably bound nitric oxide. In view of the foregoing, Applicants submit that the disclosures of Rudolf et al. do not anticipate the instant claims, and respectfully request that the instant rejection be withdrawn.

### **Claim Rejections - 35 U.S.C. § 103**

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Zhang et al. in view of U.S. Patent No. 5,492,883 (“Wu”). The Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a binder as disclosed by Wu in the formation of a monolith as taught by Zhang et al. in order to make the invention as instantly claimed.

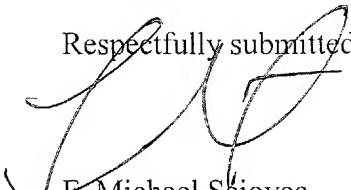
Wu discusses improved zeolite structures, particularly cellular zeolite structures such as extruded honeycomb monoliths and methods of preparing the same using aqueous emulsions of silicone resins (*see*, col.2, lines 7–10) for use as molecular sieves. The molecular sieves as envisioned by Wu relate to a class of materials that exhibit selective adsorption properties (*see*, col. 2, lines 32 and 33). However, similar to the disclosures of Zhang et al., Wu is silent in regard to pharmaceutical, nutraceutical and cosmetic preparations comprising a zeolite material. Furthermore, Wu is silent in regard to a zeolite material with reversible binding properties and zeolites comprising releasably bound NO. As such Applicants submit that the instantly rejected claim, as amended herein, is not obvious over Zhang et al. in view of Wu, in that Zhang et al. and Wu, either alone or in combination, do not teach all the elements of that which is claimed. In view of the foregoing, Applicants respectfully request that the instant rejection be withdrawn.

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## CONCLUSION

Applicants respectfully submit that this application is now in condition for allowance, which action is earnestly solicited. Should the Examiner have any matters outstanding of resolution, he is encouraged to telephone the undersigned at 919-854-1400 for expeditious handling.

A petition for extension of time is required with the filing of this paper. Said petition is filed concurrently herewith. Please charge Deposit Account No. 50-0220 in the amount of \$130.00 for a one-month extension of time. This amount is believed to be correct. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

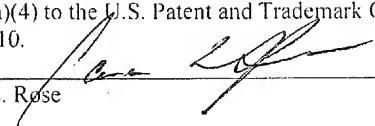
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I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on January 26, 2010.

  
Cara L. Rose